

Case 3351

***Chelodina rugosa* Ogilby, 1890 (currently *Macrochelodina rugosa*; Reptilia, Testudines): proposed precedence over *Chelodina oblonga* Gray, 1841**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the current usage of the name *Chelodina rugosa* Ogilby, 1890 (currently *Macrochelodina rugosa*) for the northern long-necked turtle from northern Australia. The recent finding that *Chelodina oblonga* Gray, 1841 is a subjective senior synonym of *Chelodina rugosa* threatens nomenclatural stability. It is proposed that the name *Chelodina rugosa* is given precedence over *Chelodina oblonga* whenever the two are considered to be synonyms.

Keywords. Nomenclature; taxonomy; Reptilia; Testudines; CHELIDAE; *Macrochelodina*; *Chelodina*; *Chelodina oblonga*; *Chelodina rugosa*; *Chelodina colliei*; Australia; side-necked turtle; northern long-necked turtle.

1. J.E. Gray, during his tenure as Keeper of Zoology at the British Museum, London, described many Australian turtles. Among them were *Chelodina oblonga* Gray, 1841 (p. 446) (holotype Natural History Museum, London, (BMNH) 1947.3.5.89, from Western Australia) and *Chelodina colliei* Gray, 1856 (p. 200) (lectotype Natural History Museum, London (BMNH) 1947.3.5.91 from Swan River; designated by Thomson, 2000, p. 747). Gray (1856, 1857, 1870, 1873) continued to regard the two species as distinct. Gray (1870, p. 72) gave the range of *Chelodina oblonga* as north and west Australia. Gray (1873, pp. 62–63) gave the locality data for the three specimens of this species in the museum, two from Port Essington and one from Western Australia.

2. *Chelodina colliei* was treated as a junior synonym of *Chelodina oblonga* by Boulenger (1889), who also published the combined range as north and west Australia. Strauch (1890) and Schenkel (1901) followed Boulenger by assigning material from Thursday Island and Prince of Wales Island (Torres Strait, northern Australia) to *Chelodina oblonga*.

3. Ogilby (1890, p. 56) described *Chelodina rugosa* (holotype Australian Museum R6256) from Cape York, Queensland; it was rapidly synonymised with *Chelodina oblonga* (Boulenger, 1890; Boulenger, 1892; Siebenrock, 1905).

4. Werner (1901) described *Chelodina siebenrocki* (holotype Zoologisches Museum, Berlin ZMB16491) from Papua New Guinea. This species was synonymised with *C. oblonga* by Siebenrock (1915), although some subsequent authors have thought it to be distinct.

5. For the next 62 years the name *Chelodina oblonga* was used for the turtle species from northern and Western Australia (Werner, 1909; Siebenrock, 1909, 1915; Rooij, 1915; Loverige, 1934; Mertens & Wermuth, 1955; Wermuth & Mertens, 1961; Worrell, 1963; Pritchard, 1967).

6. Burbidge (1967, unpublished thesis) and Goode (1967) considered the south-western Western Australian *Chelodina* species distinct from the allopatrically-distributed tropical populations, and restricted to it the name *C. oblonga* Gray, 1841. Goode (1967) applied the name *Chelodina siebenrocki* Werner, 1901 to the northern Australia species, with *C. rugosa* in synonymy, despite the priority of the latter name. Goode's nomenclature was followed by Peters (1969).

7. The priority of *C. rugosa* over the name *C. siebenrocki* was noted by Cogger & Lindner (1974) and Burbidge et al. (1974), both publications also regarding the two species as distinct, having used the name *C. rugosa* for the northern Australia species. Cann (1972) had similarly used the name *C. rugosa* for the northern Australian species, without discussion.

8. Burbidge et al. (1974) provided further serological and morphological evidence for the distinctiveness of *C. oblonga* and *C. rugosa*.

9. The name *C. rugosa* has, since 1974, been used consistently for the northern Australian species (Covacevich et al., 1990; Thomson & Georges, 1996; Thomson et al., 2000; McCord & Thomson, 2002), including ecological studies (Cann, 1980a; Kennett & Georges, 1989; Kennett et al., 1993; Kennett, 1996; Kennett & Tory, 1996), field survey reports (Cann, 1980b, 1980c; Shea et al., 1988), phylogenetic and karyological analyses (Gaffney, 1977; Bull & Legler, 1980; Pritchard, 1984; Georges & Adams, 1992; Seddon et al., 1997; Georges et al., 1999; Thomson et al., 2000; McCord & Thomson, 2002; Iverson et al., 2001; Thomson et al., 2005).

10. The name *Chelodina oblonga* was applied solely to the northern long-necked turtle from 1841 to 1889, a total of 48 years. Since Boulenger (1889), as a composite species it also incorporated the south-west long-necked turtle until 1967, a total of 78 years. Since 1967 it has been restricted to the south west long-necked turtle (originally named *C. collicii*), a total of 33 years. Much recent literature has also used the name in this way (Cogger, 1975; Rhodin & Mittermeier, 1976, 1977; Wermuth & Mertens, 1977; Cann, 1978, 1998; Pritchard, 1979, 1984; Bull & Legler, 1980; Burbidge, 1981; Cogger et al., 1983; Iverson, 1986; Kutschling, 1988, 1989; King & Burke, 1989; Georges & Adams, 1992; Thomson & Georges, 1996; Seddon et al., 1997; Georges et al., 1999; Thomson et al., 2000; McCord & Thomson, 2002; Thomson et al., 2005).

11. Cann (1998) expressed doubts that the south-western species is conspecific with the holotype of *Chelodina oblonga*. Subsequently, Thomson (2000) demonstrated that, contrary to the findings of Rhodin & Mittermeier (1977), the holotype of *C. oblonga* is conspecific with the holotype of *C. rugosa* and not with the south-western species to which the name has recently been applied. He restricted the type locality of *C. oblonga* to Port Essington, Northern Territory. He also noted that *Chelodina collicii* could be resurrected from synonymy as the only available name for the south-western species.

12. The argument has been made among researchers that the name *Chelodina oblonga* should be conserved over the name *Chelodina collicii* for the south-west Western Australian species due to consistent usage. However, to my knowledge, this recommendation has not been put in press or formally recommended anywhere. In

my opinion, it would be more practical to use the name *Chelodina colliei* for the south-west Western Australian species because the taxonomy of the species known as *Chelodina rugosa* is far from resolved. The holotype of *Chelodina rugosa* is from Cape York, in north-east Australia, and that of *Chelodina oblonga* is from Port Essington, in north-west Australia; they are from the extreme east and west limits of the range of the species. Morphological and electrophoretic differences have been found between them (Georges & Adams, 1992; Georges et al., 1996; Thomson et al., 2000) and the same can be said of the Papuan species *Chelodina siebenrocki*. At present all these populations are regarded as a single species, but it is possible that they could be proved to be separate species with further study. Hence, it would seem inappropriate to set aside the holotype of a species that may be correctly resurrected in the future. *Chelodina oblonga* should remain an available name for the Northern Territory form of *Chelodina rugosa*.

13. Further complicating this matter is the genus name *Macrochelodina* Wells & Wellington, 1985 (p. 13). The type species of the genus was originally designated as *Chelodina oblonga*. Thomson (2000, p. 747) demonstrated that the holotype of *C. oblonga* is not the same as the current concept of this species from Western Australia, i.e. that the type species of *Macrochelodina* Wells & Wellington, 1985 has been misidentified. Iverson et al. (2001, p. 362) explained that the name *Macrochelodina* is still valid, but designated a new type species as *Chelodina rugosa*, which they considered synonymous with *Chelodina oblonga*, and interpreted this as the original intent of the authors of the genus (Articles 67.9 and 70.3 of the Code – Misidentified type species). Hence the name *Macrochelodina* is the correct generic name for what has been called in the literature the *Chelodina* “B” group (Rhodin & Mittermeier, 1976) and includes the species *Macrochelodina expansa*, *Macrochelodina burrungandjii* and *Macrochelodina parkeri* along with *Macrochelodina rugosa* among the living forms (Georges & Adams, 1992; Rhodin, 1994a, 1994b; Georges et al., 1996; Thomson et al., 2000; Thomson, 2000). *Chelodina colliei*, as correctly applied, is a member of the *Chelodina* or *Chelodina* “A” group (Georges et al., 1996; Thomson et al., 2000; Thomson, 2000).

14. The name *Chelodina rugosa* (currently *Macrochelodina rugosa*) has been in common usage for three decades for the northern Australian species and the name *Chelodina oblonga* has been used for the south-western Australian species for a similar time. It would prove disruptive to now apply *C. oblonga* to the northern species, even though this is the correct name for that species. I do believe, however, that the name *C. colliei* should be conserved for the south-western species following the original descriptions and taxonomy of Gray (1856, 1857, 1870, 1872, 1873).

15. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to give the name *rugosa* Ogilby, 1890, as published in the binomen *Chelodina rugosa*, precedence over the name *oblonga* Gray, 1841, as published in the binomen *Chelodina oblonga*, whenever the two are considered to be synonyms;
- (2) to place on the Official List of Generic Names in Zoology the name *Macrochelodina* Wells & Wellington, 1985 (gender: feminine), type species by subsequent designation by Iverson et al. (2001) *Chelodina rugosa* Ogilby, 1890;

- (3) to place on the Official List of Specific Names in Zoology the following names:
- (a) *colliei* Gray, 1856, as published in the binomen *Chelodina colliei* and as defined by the lectotype (catalogue no. 1947.3.5.91 in the Natural History Museum, London);
 - (b) *rugosa* Ogilby, 1890, as published in the binomen *Chelodina rugosa* and as defined by the holotype (catalogue no. R6256 in the Australian Museum, Sydney) (type species of the genus *Macrochelodina* Wells & Wellington, 1985, with the endorsement that it is to be given precedence over the name *oblonga* Gray, 1841, as published in the binomen *Chelodina oblonga*, whenever the two are considered to be synonyms);
 - (c) *oblonga* Gray, 1841, as published in the binomen *Chelodina oblonga*, with the endorsement that it is not to be given priority over the name *rugosa* Ogilby, 1890, as published in the binomen *Chelodina rugosa*, whenever the two are considered to be synonyms.

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